

General Rule M  
SEC

Rate disappearance = Rate appearance

$$aA + bB \rightleftharpoons cC + dD$$

$$\frac{-1}{a} \frac{\Delta[A]}{\Delta t} = \frac{-1}{b} \frac{\Delta[B]}{\Delta t} = \frac{1}{c} \frac{\Delta[C]}{\Delta t} = \frac{1}{d} \frac{\Delta[D]}{\Delta t}$$

Solve for D in terms of A

$$\frac{-1}{a} \frac{\Delta[A]}{\Delta t} = \frac{1}{d} \frac{\Delta[D]}{\Delta t} \quad * \frac{d}{-1}$$

$$\frac{-d}{a} \frac{\Delta[A]}{\Delta t} = \frac{\Delta[D]}{\Delta t}$$

Mole RATIO  
Lower case  
letters

Apr 8-9:21 AM

## Graphing Equilibrium

Concentration Do NOT CHANGE ONCE EQ established

Rate forward = Rate Reverse

[Reactants] does NOT have to equal [Products]

$K \approx 1$   
EQ

$K \gg 1$   
EQ

$K \ll 1$   
EQ

Apr 8-9:42 AM



EQ

p20 + p22#1+2

Apr 8-10:04 AM